

LOOKING FOR WORK, SEARCHING FOR WORKERS

AMERICAN LABOR MARKETS DURING
INDUSTRIALIZATION

JOSHUA L. ROSENBLOOM

University of Kansas



CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK
40 West 20th Street, New York, NY 10011-4211, USA
477 Williamstown Rd., Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa
<http://www.cambridge.org>

© Joshua L. Rosenbloom 2002

This book is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 2002

Printed in the United Kingdom at the University Press, Cambridge

Typeface Sabon 10.25/14 pt. *System* L^AT_EX 2_ε [TB]

A catalog record for this book is available from the British Library.

Library of Congress Cataloging in Publication Data

Rosenbloom, Joshua L.

Looking for work, searching for workers : American labor markets during
industrialization / Joshua L. Rosenbloom.

p. cm.

Includes bibliographical references and index.

ISBN 0-521-80780-8 – ISBN 0-521-00287-7 (pc.)

1. Labor market – United States – History. 2. Labor demand – United States –
History. 3. United States – Economic conditions – 1865–1918. I. Title.

HD5724 .R58 2002

331.12'0973 – dc21

2001035671

ISBN 0 521 80780 8 hardback
ISBN 0 521 00287 7 paperback

CONTENTS

	<i>List of Figures and Tables</i>	page ix
	<i>Preface</i>	xiii
1	Labor Markets and American Industrialization	1
2	Job Seekers, Employers, and the Creation of Labor Market Institutions	14
3	Employment Agencies and Labor Exchanges: The Impact of Intermediaries in the Market for Labor	46
4	Markets for Skilled Labor: External Recruitment and the Development of Internal Labor Markets	80
5	One Market or Many? Intercity and Interregional Labor Market Integration	114
6	Labor Market Integration and the Use of Strikebreakers	147
7	Labor Market Institutions and American Economic Growth: Lessons from the Nineteenth Century	173
	<i>References</i>	182
	<i>Index</i>	195

LIST OF FIGURES AND TABLES

Figures

1.1	Number of Arriving Immigrants, 1825-1939	<i>page 6</i>
1.2	Index of Internal Redistribution of Population, 1870-1950	7
4.1	Wages of Urban Skilled Workers and Artisans Relative to Wages of Unskilled Labor, 1850-1914	90
4.2	Indexes of Nominal Wages by Skill, 1890-1914	90
4.3	Ratio of Skilled to Unskilled Wages in the Building Trades, Chicago, 1847-1898	91
4.4	Ratio of Skilled to Unskilled Wages in the Metal-Working Trades, Chicago, 1850-1898	92
5.1	Wage Determination in Two Cities	116
5.2	Relative Real Wages of Common Laborers, 1851-1880	122
5.3	Relative Real Earnings in Manufacturing, the North and West, 1879-1914	127
5.4	Relative Real Earnings in Manufacturing, the South Atlantic and South Central, 1879-1914	128
5.5	Real Wages and Earnings Relative to the Northeast, 1820-1914	133
5.6	Immigration and Unemployment, 1890-1914	135
5.7	Relative European Wages, 1870-1913	138
5.8	Relative European Wages, 1870-1913	139

LIST OF FIGURES AND TABLES

Tables

2.1	Percentage Foreign Born among Gainfully Occupied Workers in Selected Occupations and Cities, 1890	19
2.2	Net Migration, by Region and Race, 1870-1950	39
2.3	Rates of Net Migration from Southern Subregions, 1870-1950	41
3.1	Number of Private Employment Agencies in New York, Chicago, and Baltimore, by Occupational Specialization, 1907-1912	57
3.2	Workers Placed Outside of New York City by New York Employment Agencies, 1904-1906	60
3.3	Destinations of Workers Sent Outside New York City by New York Employment Agencies, 1904-1906	61
3.4	Statistics of Private Employment Agencies in St. Louis, 1891	62
3.5	Number of Persons Placed by the Castle Garden Labor Exchange and Total Alien Arrivals in New York, 1869-1887	72
3.6	Location of Jobs in Which Male Immigrants Were Placed by the Castle Garden Labor Exchange	73
3.7	Total and Annual Average Number of Persons Placed by Selected Public Employment Offices, 1890-1911	76
4.1	Shares of Male Workers by Occupation, 1870-1920	88
4.2	Occupational Wage Ratios in Birmingham, England, and Pittsburgh, Pennsylvania, 1905	93
4.3	Ratios of Skilled to Semiskilled and Unskilled Wages in the United States and Selected European Countries, 1905-1910	94
4.4	Ratios of Skilled to Unskilled Wages in the United States, Britain, France, and Belgium, 1890	95

LIST OF FIGURES AND TABLES

4.5	Apprenticeship and Training in New York Industries, 1907-1908	97
4.6	Length of Censored Job Spells, 1913-1914 and 1973	110
5.1	Relative Regional Real Wages of Selected Occupations in 1890 from the Aldrich Report	124
5.2	Relative Regional Real Wages of Selected Occupations in 1890 from the <i>Nineteenth Annual Report of the Commissioner of Labor</i>	125
5.3	Within-Region Coefficient of Variation of Real Average Earnings of Male Manufacturing Wage Earners, 1879-1914	129
5.4	Regional Log Real-Wage Differences from the National Average, Civilian Employees at Military Forts, by Occupational Category, 1820-1860	132
5.5	European Emigration Rates by Decade, Selected Countries, 1871-1910	136
6.1	Aggregate Strike Statistics, 1881-1900	149
6.2	Selected Strike Characteristics, 1881-1894	156
6.3	Determinants of the Use of Replacements and the Log of the Number of Replacements Hired	161
6.4	Determinants of the Use of Replacements Brought from Other Places and the Log of the Number of Replacements Brought from Other Places	168

LABOR MARKETS AND AMERICAN INDUSTRIALIZATION

On August 8, 1904, John Achzener met a man on the street in Baltimore who asked him if he “wanted to go along with some other men to Chicago to work as butchers at \$2.25 a day.” After inquiring if there was a strike and being assured that there was not, Achzener accepted the offer and boarded a train for Chicago.¹ When William Rees, a weaver living in Philadelphia, needed work, he would walk from one employer to the next seeking a job, sometimes traversing four miles or more on his rounds. At other times he would get lucky and “stumble in just when they need[ed] a weaver” (Licht 1992, p. 1). In December 1915, the superintendent of the Robeson Iron Company, located in Pennsylvania, wrote to Thomas Armato of the Industrial Labor Agency, an employment agency in Brooklyn, to inform him that “we expect to extend our operations soon, and will likely want more men. At our quarry we have mostly Italians, and here nearly one half foreigners, of whom about one half are Italians and one half Slavonians.”²

These transactions between employers and job seekers, and millions of others like them, were all part of the operation of American labor markets during the late-nineteenth and early-twentieth centuries. Economists often use the term “market” to describe a group of buyers and sellers of a particular good or service or to refer to

¹ As it turned out, there was a strike, and Achzener soon left his new employment. His account of how he came to Chicago was recorded by striking union members and is reproduced in Tuttle (1966, p. 195–96).

² This letter and the series of correspondence from which it comes are reproduced in Bodnar (1974).

the transactions that take place between these buyers and sellers.³ Market participants could not carry out these transactions, however, without information about specific opportunities to exchange goods and services and the means to act on this information. Markets are embedded then in specific institutions that serve to channel information, establish prices, and bring buyers and sellers together so that they can carry out transactions. Economists typically take the existence of smoothly functioning markets for granted, but the fact is that the institutions necessary to establish such markets do not simply emerge full-blown but must be created by self-interested individuals – either market participants themselves or third-party intermediaries. How these institutions operate can have important impact on the outcomes that they produce.

During the nineteenth century, industrialization and other structural changes in the American economy increased the importance of labor markets while substantially compounding the problems that labor market institutions had to resolve. As these changes transformed the United States from a primarily rural and agricultural society to an urban and industrial society over the course of the nineteenth century, wage labor assumed an increasingly prominent role in the economy. At the beginning of the nineteenth century, most Americans, with the exception of slaves, worked as independent farmers or artisans. There were, of course, wage workers, but most of these people found employment as trade workers or farm laborers and could reasonably expect that their status as employees was a step toward becoming an independent proprietor themselves. By the end of the century, the typical worker was much more likely to be employed for wages in a large factory.⁴

³ See, for example, the definition of markets in Mankiw's (1998, p. 62) widely used introductory economics textbook.

⁴ The career prospects of late-nineteenth century wage laborers are hard to characterize. Although it seems likely that many remained wage laborers throughout their lives, many must have harbored the expectation that such work was a temporary interlude. Piore (1979, ch. 3) argued that many of the immigrant workers – who made up an important segment of the industrial labor force – expected at first that they would return to their homelands and use their earnings to purchase farm land or secure a higher status at home. High rates of return migration suggest that many of them may have realized their expectations. But it is equally clear that not all were successful in this quest.

One manifestation of this transformation was the growing prominence of labor issues in the decades after the Civil War. During the economic depression that followed the Panic of 1873, for example, unemployment emerged as a major policy concern in the more industrialized parts of the country, where public officials confronted the problems raised by large numbers of idle workers unable to support themselves. Irregular employment was not a new problem, but as growing numbers of workers became dependent on wage labor for their livelihood, the nature of the problem was transformed, prompting officials to acknowledge for the first time that many of those without work were unemployed “through no fault of their own” (Keyssar 1986, ch. 2). In the 1880s, the nation was swept by an unprecedented wave of labor conflict and strikes. Unemployment, strikes, and other labor issues prompted a growing number of states as well as the federal government to establish bureaus of labor statistics to study the operation of labor markets and track the conditions of wage workers.⁵

The 1880s also mark the beginnings of what might be termed the modern era of organized labor. During the 1880s, the Knights of Labor successfully organized large numbers of workers. Although this organization collapsed as quickly as it had emerged, in the 1890s the American Federation of Labor rose to prominence, successfully promoting the spread of unionization. By the early twentieth century, nearly 10 percent of nonagricultural workers were union members (Freeman 1998, pp. 291–3). Organized labor’s advances both benefited from and contributed to the growing importance of labor issues in the political arena. Organized labor and social reformers turned increasingly to the political arena in their efforts to limit the use of child labor, regulate safety conditions for women and children, establish maximum hours and minimum wages, create old-age pensions, unemployment and sickness insurance, and reform workers’ compensation laws (Fishback 1998, p. 751).

⁵ The first such bureau was established in Massachusetts in 1870. By the end of the 1870s, it had been joined by similar organizations in Pennsylvania (established 1873), Ohio (1877), New Jersey (1878), Indiana, Missouri, and Illinois (all 1879). By 1900, 30 states and the federal government had all established agencies to monitor and study labor conditions. See Carter, Ransom, and Sutch (1991).

Although the roots of American industrialization lie in the antebellum period, the pace of change quickened substantially after the Civil War. The integration of national rail and telegraph systems in the 1860s helped to create national markets for processed foods and consumer goods and encouraged manufacturers in a wide range of industries to build new capital- and scale-intensive factories to exploit economies of scale that larger markets made possible (Chandler 1977).⁶ Some sense of the transformation in manufacturing is conveyed by the rapid growth in the size and capital intensity of manufacturing establishments at this time. Between 1870 and 1900, the average number of employees per establishment more than doubled in 11 of 16 manufacturing industries. More striking is the growth of truly large factories. In 1870, the McCormick plant in Chicago, with an employment of 400 to 500 workers, was considered one of the largest in the nation. By 1900 there were 1,063 establishments employing 500 to 1,000 workers, and 443 employing more than 1,000 workers (Nelson 1975, pp. 4–5). Capital accumulation was proceeding even more rapidly as indicated by the fact that the real value of capital per worker in manufacturing more than doubled between 1879 and 1899 (U.S. Bureau of the Census 1975, series P-5 and P-123). These developments could not have taken place without the development of mechanisms capable of mobilizing vast numbers of workers and facilitating their redistribution over long distances.

During the nineteenth century, the geographic scope of American labor markets expanded in response to the demands created by industrialization. In 1790, when Almy and Brown opened the first American textile mill using British spinning technology, the workforce consisted of a single adult supervisor and nine children between the ages of 4 and 10, all of whom were drawn from the

⁶ According to Perloff et al. (1965, p. 191), “For practical purposes, the joining of the Union and Central Pacific railroads in Utah on May 10, 1869, may be said to symbolize the beginning of a truly nation-wide economy.” Between 1865 and 1900, railroad mileage in operation increased more than fivefold, rising from 35,000 to 193,000. At the same time, the adoption of a standard gauge, improved coordination between lines, and a host of technological innovations – including larger engines, automatic couplers, and air brakes – increased the speed and lowered the costs of travel and transportation (Stover 1961, pp. 143–80; Taylor and Neu 1956). These developments were paralleled by the growth and improvement of telegraph and telephone networks (Field 1992; DuBoff 1982).

families of nearby farmers (Ware 1931, p. 23). Two decades later when the Boston Manufacturing Company established the first integrated spinning and weaving mill in Waltham, Massachusetts, in 1814, it was unable to find the hundreds of workers it needed in the immediate area. To staff the factory its owners dispatched recruiters throughout most of the New England states to attract young women from the region's agricultural districts. To house these women they established dormitories near the factory.

In retrospect, it seems almost inevitable that the founders of the early textile mills sought to meet their labor needs by expanding the horizons of the labor market. But there was nothing natural or inevitable about this process. Indeed, the conventional economic analysis of markets treats the supply of labor as given. In this analysis, an increased demand for labor would shift the market equilibrium outward along a fixed supply curve causing wages to rise. The increase in wages would serve both to induce the available workforce to supply more effort and to cause employers to temper their labor demands until supply and demand were brought back into balance. If the founders of the Boston Manufacturing Company had been content to accept this market equilibrium, they would likely have abandoned their efforts to establish factory production of textiles because the costs of labor were prohibitive. Instead of accepting high labor costs, however, they chose to adjust along a different margin, taking steps that would lower the supply price of labor through the development of new channels of communication that expanded the pool of workers on which they could draw.

As the century progressed, the growth of factories along with the need to build railroad lines, cities, and urban infrastructure multiplied the scale of employers' demand for labor and obliged employers everywhere to address the same problems of labor supply that had confronted the Boston Manufacturing Company. In most cases, they followed a similar route, pursuing strategies that helped to expand labor markets over broader and broader areas.⁷

⁷ A comparable broadening of markets for finance capital was also required. Davis' (1963, 1965) work on the emergence of a national financial market stimulated a large literature tracing the development of financial markets in this era. Among the subsequent studies, see especially Carosso (1970), Sylla (1969), James (1978),

LOOKING FOR WORK, SEARCHING FOR WORKERS

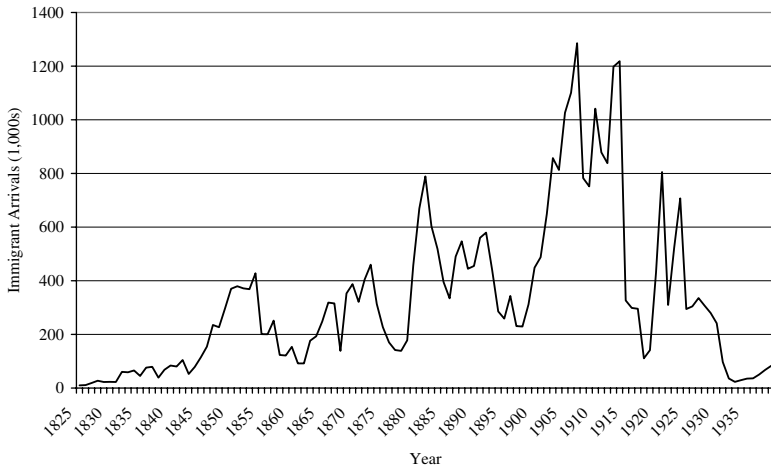


Figure 1.1 Number of Arriving Immigrants, 1825–1939. *Source:* U.S. Bureau of the Census (1975, series C-89).

By the 1840s the pool of underemployed rural workers had begun to diminish, obliging northern manufacturers to turn increasingly to foreign immigrants for labor. As Figure 1.1 illustrates, despite sharp short-run fluctuations linked to macroeconomic cycles, the number of arriving immigrants followed an increasing trend, reaching roughly 800 thousand per year in the decade after 1900. Between 1870 and 1915, nearly 30 million immigrants entered the country. Reflecting this influx, the foreign-born share of the population increased from around 13 percent in 1860 to a high of nearly 15 percent in 1890. Because of the selective nature of immigration, the foreign born were an even larger fraction of the labor force, accounting for 20 percent of gainfully employed workers in 1870 and 26 percent at the end of the century. The foreign-born presence was especially significant in the most rapidly growing sectors of the economy. The native-born people tended to concentrate in agriculture, and the foreign-born workers provided nearly a third of the nation's manufacturing and transportation labor force and made up a majority of the labor force in many of the largest and most rapidly growing cities.

and Snowden (1987a, 1987b). As a result, we know a great deal both about the development of financial institutions involved in the mobilization of capital and the extent to which these institutions gave rise to a unified national financial market.

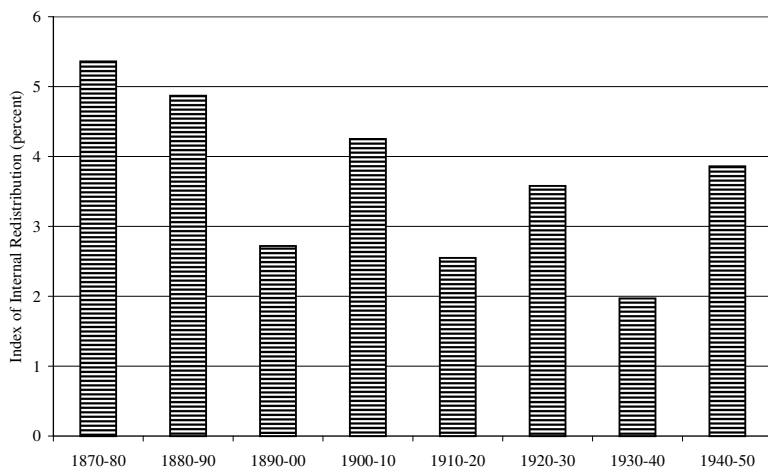


Figure 1.2 Index of Internal Redistribution of Population, 1870–1950. *Note:* The index is the sum of positive (or negative) changes in the percentage of total national population residing in each state during each time period. *Source:* Eldridge and Thomas (1964, p. 28).

The beginning of World War I brought the era of mass migration to an abrupt end. With the outbreak of the war, immigration slowed to a trickle. There was a brief recovery in arrivals at the end of the war, but the passage of restrictive legislation in the early 1920s slowed the flow of immigrants substantially.

Paralleling these international population movements was an equally massive internal redistribution of population. Because of data limitations, population movements within the country are less well documented than international ones, but Figure 1.2 shows one index of population redistribution constructed by summing changes in the percentage of the nation's population in each state between successive censuses beginning in 1870.⁸ The two largest changes took place in the 1870s and 1880s. Subsequent decades show a pattern of oscillations around a generally declining trend, with each peak or trough lower than the preceding one.

⁸ Because the positive and negative changes in state shares of the population must sum to zero, the index is constructed by summing either the positive or the negative changes. Clearly, the measure here captures only net migration between states. Data available since 1940 show that there may be substantial offsetting migration flows, which will be missed by this measure. See Eldridge and Thomas (1964, ch. 1) for further discussion.

Falling transportation and communication costs after the Civil War created the potential for the expansion of labor markets over a broader geographic area, and hence a growing level of geographic integration. Realizing this potential, however, required the development of effective labor market institutions capable of channeling information between employers and job seekers in distant locations and the creation of mechanisms to finance the movement of workers in response to this information. Without the development of these labor market institutions it would have been impossible for the United States to follow the path of industrialization that it actually took in the decades after the Civil War.

This book poses two questions about this formative episode in the development of American labor markets: What labor market institutions promoted the geographic mobility of labor during American industrialization? And how did these institutions influence the course of American economic development? The answers to these questions yield a number of important insights. The first is the prominence of employer recruitment in promoting the geographic expansion of labor markets. Economists and historians interested in migration have long recognized the important place of friends and family in facilitating long-distance migration, but I show both that employers were instrumental in initiating migration flows that were later perpetuated by friends and family and that the reliance of job seekers on kin- and friendship-based information channels was effective only because employers adopted hiring and personnel policies that were complementary to the operation of these informal labor market channels. Labor market institutions, in other words, were the product of the interaction between employers and workers.

The second point that emerges from this investigation is the importance of historical forces in shaping the patterns of labor market integration that emerged in the course of the nineteenth century. The complementary actions of employers and job seekers created labor market institutions that were highly effective in mobilizing labor over long distances, resulting in a considerable degree of market integration. Yet the labor market channels of communication and assistance that they promoted evolved in

a fundamentally historical, or path-dependent, manner. Patterns of labor market recruitment that emerged during the first half of the nineteenth century, when slavery separated southern from northern labor markets, were perpetuated and reinforced by the reliance on kin- and friendship-based networks of labor market information. After the abolition of slavery, well-integrated southern and northern labor markets remained largely isolated from one another until large-scale European immigration was terminated by the beginning of World War I.

The third point is that the development of late-nineteenth century labor market institutions that promoted geographic mobility involved trade-offs with other labor market outcomes. Although employers recruited both skilled and unskilled workers over long distances, late-nineteenth century labor market institutions proved more effective at integrating markets for less skilled workers than they were for more skilled ones. This difference encouraged American employers to reorganize production processes – introducing specialized machinery and increasing the division of labor – to reduce their reliance on skilled craft workers. Their efforts did not so much eliminate the need for skilled labor as alter the types of skills that were required. Factory methods of production required a new class of semiskilled operatives who could best acquire the skills they needed through on-the-job training rather than formal apprenticeships. The high rates of turnover that characterized late-nineteenth and early-twentieth century labor markets limited the ability of workers and employers to make investments in training, however, and contributed to a growing tension between the goals of efficient spatial allocation of labor and the training of adequate numbers of skilled workers.

PLAN OF THE BOOK

The next two chapters describe the development of those labor market institutions that facilitated increasing geographic integration in the late-nineteenth century. In Chapter 2, I describe the dominant methods by which labor market information was communicated and transactions were accomplished. As is true today, labor markets after the Civil War were highly decentralized.

The primary channels of communication were informal networks of friends and relatives. These same friends and family also provided assistance in financing the direct and indirect costs of long-distance migration. When these networks came into existence, they proved highly efficient mechanisms for mobilizing long-distance movements of labor and were strongly encouraged by employers. Because they linked specific sending and receiving regions, however, the development of kin- and friendship-based labor market recruitment mechanisms tended to reflect the influence of historical accidents. After a particular pattern of migration had become established, it tended to be perpetuated, while other potential sources of labor supply were neglected because comparable mechanisms of recruitment had not been established.

But finding that kin- and friendship-based networks dominated the recruitment of labor at this time provides only a partial answer to the question of how labor markets worked; it is also necessary to determine how these networks came into being in the first place. As I show, employers played an essential and purposeful role in establishing these networks through their recruitment of migrants, either directly or through the services provided by employment agencies. In principle, the activities of employers should have tended to offset the tendency of the labor market to become locked-in to particular patterns of connections. However, I find that patterns of employer recruitment were also prone to a considerable degree of path-dependence in their evolution because of the coordination problems associated with the decentralized decisions made by employers and job seekers. For employers, recruiting was most effective where there were large concentrations of mobile job seekers. For job seekers, the prospects of finding a job were clearly greatest where many employers were likely to be. The mutually reinforcing nature of these concerns then tended to push job seekers and employers to concentrate their search efforts in a few major centers of labor distribution. By the time of the Civil War, New York, Chicago, and a small number of other major cities had emerged as focal points for both groups, and this pattern persisted without significant disruption until the influx of foreign workers was interrupted by the outbreak of World War I.

Although labor market intermediaries – employment agencies and labor exchanges – did develop during the late-nineteenth century, their role in the mobilization of labor remained significantly constrained. In Chapter 3, I offer an explanation for the limited role of labor market intermediaries based on a careful examination of the operation and characteristics of the intermediaries that did emerge in this period. Drawing on a wide array of sources, I show that the operation of successful labor market intermediaries closely paralleled the workings of the informal networks of friends and relatives that were the primary source of labor market information. The close correspondence in the operation of formal intermediaries and informal channels suggests that rather than seeing intermediaries as a potential alternative to these networks, they should be viewed as a commercialized extension of them. Only where informal connections were not viable were labor market intermediaries capable of surviving for any length of time.

In Chapters 4 through 6, I turn to an examination of the impact of late-nineteenth century labor market institutions on the course of American economic development. Chapter 4 considers the interaction between the development of mechanisms to facilitate the external recruitment of labor and the ways in which employers allocated labor internally, and especially how they filled positions requiring specialized skills. External recruitment was an important source of skilled and unskilled workers in this period. But, evidence on employment trends and the evolution of skill premia indicate that at the aggregate level the supply of skilled workers was less elastic than that of unskilled workers. In part, this inelasticity may reflect the weakness of American apprenticeship, but it also reflects the greater reluctance of skilled European workers to emigrate to the United States. Responding to the high and rising costs of recruiting traditional categories of skilled labor, employers turned to technological solutions – reorganizing work processes by introducing specialized capital equipment and an increased division of labor. These changes did not so much eliminate the need for skilled workers as alter the types of skills required and increase the importance of on-the-job training in employer-specific skills. These changes created incentives to increase the duration of worker-employer attachment, a fact reflected in the

emergence of a substantial minority of workers with long job tenures. But continued reliance on immigrant laborers with relatively low attachment to factory work appears to have slowed the adoption of internal promotion and long-term jobs. Not until the end of mass migration after World War I did employers begin to invest significantly in the development of so-called internal labor markets.

Chapter 5 uses data on wages and earnings to trace changes in the geographic scope of labor markets across much of the nineteenth and early-twentieth centuries. In the theoretical ideal of a market with no information or transactions costs, comparable workers would earn the same wage regardless of their location, a fact sometimes labeled the “law of one price.” Because obtaining information and carrying out transactions involve real costs, however, actual markets will never attain this theoretical ideal. The more efficient the institutions that emerge, however, the smaller the degree of variation in wages across different locations.⁹ Spatial variations in wages thus provide one important measure of the efficiency of market institutions.

Consistent with evidence developed in Chapter 2 that patterns of migration tended to follow well-established routes, these data show that the expansion of American labor market boundaries after the Civil War was impressive, but strikingly uneven. By the end of the nineteenth century, labor markets in the northern United States had been linked in a tightly integrated regional market, and were, in turn, closely linked to northern European labor markets. Yet this regional and international integration coincided with the persistent isolation of northern and southern labor markets in the United States from one another.

Chapter 6 considers the impact of market expansion on labor relations, through an examination of variations in employers’ use of strikebreakers in late-nineteenth century labor conflicts. The

⁹ Suppose that the range of prices is from a low of P_l to a high of P_h . Clearly buyers who paid P_h would have preferred to buy at P_l , and sellers who received P_l would rather have sold at price P_h . That these traders did not encounter each other is a consequence of their lack of complete information, and the range of prices then provides one metric for assessing the extent of the costs imposed by lack of complete information in the market.

progress of labor markets toward increasing regional and international integration tended to break down barriers isolating local markets, making it more difficult for workers in any one place to affect the terms of their employment. One visible manifestation of this was the widespread use of strikebreakers at this time to undermine the bargaining power of workers engaged in labor disputes. In the 1880s and 1890s, employers used strikebreakers in over 40 percent of strikes, and the use of strikebreakers substantially reduced striking workers' chances of success. Labor historians have suggested that worker and community solidarity may have been stronger in smaller places, thus making it easier to prevent strikebreaking. It also seems possible that workers in some industries or skilled occupations may have been more insulated from competitive pressures than were others. In this chapter, I examine and largely reject these conjectures. Rather, I find that the use of strikebreakers did not vary appreciably by region or city size and that industry and occupation effects were quite limited as well. I do, however, find that the source of strikebreakers varied systematically with location, with employers in smaller communities and in locations outside the Northeast most likely to use outside strikebreakers.